



## ***FEDERAL-AID ACCEPTANCE SAMPLING AND TESTING FIELD SECTION 15***

**15.1 SCOPE.** To establish procedures for Federalaid Acceptance Sampling and Testing (FAST) of aggregates on Federal Aid projects let to contract and administered by the Department.

**15.2 GENERAL.** These procedures apply to aggregates on Federalaid projects on which the Department performs the acceptance sampling and testing. The acceptance sampling and testing procedures for other materials and construction processes are to be as shown in other sections of the Materials Manual and in the Construction Manual. These procedures do not change the sampling and testing requirements for aggregates at the production source.

### **15.3 PROCEDURE.**

**15.3.1** An inspector who takes Independent Assurance Samples (IAS) for these materials on a project is not to perform the FAST for the same material on the same project. The inspector may take a sample and furnish ~~one~~ half the sample to the FAST inspector who will then perform the required tests and report the results as a FAST.

**15.3.2** An inspector performing Process Control Tests (at quarry, source, etc.) may also perform FAST on the same aggregates. An IAS inspector may take FAST samples of aggregates on projects other than those on which he is taking IAS.

**15.3.3** The frequency at which FAST is to be performed should conform in general with that set out in [Table 1](#) of this Section.

**15.3.4** FAST of aggregates are to be obtained at the last point of handling prior to mixing with other materials or incorporation into the work. The samples may be taken from the pugmill or loaded truck at the pugmill, from the belt or bin discharge at the batch plant, from the roadway, or at other points as determined by the district Operations Engineer.

**15.3.5** The FAST is to be performed as soon as practicable after sampling. The District may determine the frequency at which gradations will be performed as washed tests except that if a FAST is performed on one-half of an IAS, it is to be washed. The size of sample and method of sieve analysis of fine and coarse aggregate is to be in accordance with [Field Sec 1001](#) of this Manual.

**15.3.6** For coarse aggregate, the nominal maximum size of particle is to be considered as the largest sieve size on which material is retained. The sample size of fine aggregate may have to be adjusted in order to comply with the requirement in [Field Sec 1001](#) of this Manual, i.e., the fraction retained on any sieve at the completion of the sieving operation shall not exceed 4 grams per square inch [6 kg/m<sup>2</sup>] of sieving surface. As a guide only, it is suggested approximately 400 grams be used as a sample size for fine aggregate for portland cement concrete (Specification Sec 1005.2.4.1) and approximately 100-150 grams for all other fine aggregate gradations.

**15.3.7** Test results are to be rounded-off in conformance with the procedures set out in [General Sec 7.1](#) of this Manual.

### **15.4 REPORT.**

**15.4.1** Results of FAST are to be reported using SiteManager and are to provide complete information. The sample record should be created and reports submitted promptly after tests are completed, within ten working days.



at the latest.

**15.4.2** The sample record should be created according to AS3510 with the following sections provided as clarification of specific issues.

**15.4.2.1** The Status, when the sample record is complete will be set to FAST Compliant or FAST Deviant. Any other status is incorrect.

**15.4.2.2** The Sample Type will be set to PJ (Proj. F.A.S.T.) and the Acceptance Method will be SATE (Sample and Test).

**15.4.2.3** The Producer/Supplier shall be the original producer of the material. For example, the quarry, not the ready-mix plant, would be shown.

**15.4.2.4** Smpld From shall show the location of sampling, i.e., "stockpile, bin discharge or roadway".

**15.4.2.5** Smpl Origin shall show the origin of the sample, i.e., "project, Anytown Ready Mix".

**15.4.2.6** The quantity may be shown on the contract tab when the FAST inspector knows the appropriate quantity to report and is able to confirm that the material complies with all appropriate specifications, not just those part of the FAST inspection process. Care must be taken to avoid duplicate reporting of quantity. This option is provided to allow more efficient use of SiteManager, and the quantity data reported in this manner is not considered to have a direct relationship to the FAST process.

**15.4.2.7** When a FAST is one-half of an IAS, the report is to identify the IAS either by complete information as to project number, date sampled, and complete location of sampling including station number, all included in the Remarks or by an identification number. For example, the FAST report could carry an identifying note such as "Test performed on one-half of IAS 1-93-20" as part of the test template.

**15.4.3** The report shall state either the "Fast Compliant" which means the material complies with the specifications or "FAST Deviant" which means material deviates from specifications. If a specification deviation occurs, retests should be made as soon as possible. Any corrective action to be taken will be determined by the District. Reports showing specification deviations are to include full information including results of retests, if made, cause of deviation, if known, what corrective action was taken, and the amount and disposition of this material.

**15.4.4** Where material is being used on more than one Federalaid project, such as at a ready mix concrete plant, the frequency of performing FAST may be determined by combining the tons of that type aggregate being used. An example of this would be a ready mix plant producing concrete for three Federalaid projects; FAST of coarse aggregate would be obtained when 1,000 tons [megagrams] of coarse aggregate had been used on all projects combined. A report of this test would then be issued for each of these projects. When FAST is performed on one half of an IAS, only the test report issued to the project for which the IAS was taken is to contain remarks identifying the IAS.

**15.4.5** Distribution of the report shall be as is normally appropriate for the material tested.

